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EXAMINER

DENNISON, JERRY B

ART UNIT PAPER NUMBER

2143

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/884,523

Applicant(s)

COUTTS ET AL.

Examiner

J. Brét Dennison

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-40, 55-74 and 78-81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-40, 55-74, 78-81 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/19/2001, 9/12/2003, 5/10/2004
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This Action is in response to Application Number 09/884,523 received on 18 June 2001.
2. Claims 20-40,55-74, and 78-81 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 20-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 20 recites, "a plurality of peripheral devices each an independent associated control application." It is unclear to and vague as to the extent of peripheral devices being control applications.
5. Claim 21 recites, "a process to process communication protocol." It is unclear to Examiner what this means.
6. Claim 22 recites, "wherein the control applications communicate with each other using broadcast signals whereby a peripheral announces to all other peripherals its present state." The definition of a peripheral device is a computer device that is connected to a computer and is controlled by the computer's microprocessor. It is unclear how the peripheral announces its state to other peripherals. If peripherals have their own microprocessor and memory to independently function, they can be considered a computing device wherein a computing device broadcasts messages.

7. Claim 37 recites "each having a different independent control application operable to communicate with the other independent control applications." It is unclear and vague to Examiner what "different independent control application" and "the other independent controls applications" means.

8. Claim 40 recites "A peripheral device for use in a self service terminal having a plurality of such devices." It is unclear and vague as to the extent of the peripheral device having a plurality of devices, or a terminal having a plurality of devices. In either meaning, it is still unclear as to what "such devices" means.

9. Claims 55-57 are unclear and vague for the same reasons as claim 22.

10. Claim 58 recites "a peripheral device that operates as a state machine based upon hardware states communicated through interfaces to hardware under control of the peripheral device." It is unclear and vague to the Examiner how a peripheral device operates as a state machine and how a peripheral device controls hardware.

11. Claim 59 recites the limitation "the networked devices". There is insufficient antecedent basis for this limitation in the claim.

12. Claim 59 recites "...peripheral devices that operate through peer to peer communication with one another and a firewall enabling communications between the networked devices and a server connected on the network, but blocking the peer to peer communications between devices from being transmitted to the server. It is unclear and vague to Examiner how the peripheral devices communicate with the server. Examiner will interpret the claim as computing devices connected in a local area network having Internet access through a gateway.

13. Claims 60-81 are unclear and vague for the same reasons as claim 22.
14. Appropriate correction is required for all above 112 rejections. The definition of a peripheral device is a computer device that is connected to a computer and is controlled by the computer's microprocessor. It is unclear how the peripheral announces its state to other peripherals.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 20, 21-23, 35-40, 58, 73, and 78-81 are rejected under 35 U.S.C. 102(b) as being anticipated by Ward (U.S. Patent Number 4,636,947).

15. Regarding claims 20, 37 and 40, Ward discloses, in a network including a server, a self-service terminal comprising a plurality of peripheral devices each having an independent associated control application, the control applications being operable to communicate the internal states of the peripheral devices with each other whereby, in

use, a peripheral device operates in response to a signal generated by another peripheral device (Ward, col. 2, lines 35-60 and Fig. 1, 16, Ward teaches a terminal in a network where each of the peripheral devices include a subsystem controller and memory for parallel transaction event processing among other devices).

16. Regarding claim 21, Ward discloses the limitations, substantially as claimed, as described in claim 20, including wherein the control applications communicate with each other using a protocol (Ward, col. 3, lines 20-25).

17. Regarding claims 23 and 35, Ward discloses the limitations, substantially as claimed, as described in claim 20, including wherein the control applications communicate with each other using signals addressed directly to selected peripheral devices so that a peripheral device only communicates with those peripheral devices whose operation depends on or is connected with the state of that peripheral device (Ward, col. 4, lines 30-35).

18. Regarding claim 36, Ward discloses the limitations, substantially as claimed, as described in claim 20, including wherein the peripheral devices are selected from the following peripheral devices: user interface, card reader, receipt printer, cash dispenser, and a bar code scanner (Ward, Fig. 2, 96).

19. Regarding claims 38 and 39, Ward discloses the limitations, substantially as claimed, as described in claim 37, including wherein the control applications have access to the server (Ward, col. 3, lines 15-25).

20. Regarding claim 58, Ward discloses a peripheral device that operates as a state machine based upon hardware states communicated through interfaces to hardware under control of the peripheral device, and based upon messages received from other peripheral devices over a connected network comprising a transaction processing terminal (Ward, col. 2, lines 50-67).

21. Regarding claim 73, Ward discloses a networked peripheral device having a memory queue storing incoming messages from other peripheral devices that are part of a functional group, where the messages are stored in the queue in the order received and the device accesses the oldest stored message first and deletes a message from the queue once the message is accessed, and where said functional group comprises a transaction processing terminal (Ward, col. 3, lines 10-25).

22. Regarding claims 78-81, Chen discloses a peripheral device for a transaction processing terminal including a dedicated processor, read/write memory and an I/O port, and further including a web server facility enabling communications over a connected network between the peripheral device and a remote terminal using a web browser utility executing on the remote terminal (Chen, col. 3, lines 55-60, col. 4, lines 25-30).

23. Claims 20-34, 55-57, and 60-62 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen (U.S. Patent Number 6,512,760).

24. Regarding claims 20-22, Chen discloses in a network including a server, a self-service terminal comprising a plurality of peripheral devices each having an independent associated control application, the control applications being operable to communicate the internal states of the peripheral devices with each other whereby, in use, a peripheral device operates in response to a signal generated by another peripheral device (Chen, Fig. 1, Chen teaches a local area network where computing devices communicate with each other);

using a protocol (Chen, col. 3, lines 55-60, Chen teaches communication, which requires a protocol)

whereby a peripheral announces to all other peripherals its present state using broadcast messages (Chenn, col. 3, lines 55-60).

25. Regarding claims 23-32, Chen discloses the limitations, substantially as claimed, as described in claims 20-22, including the control applications communicating directly to selected peripheral devices whose operation depends on or is connected with the state of that peripheral device (Chen, col. 4, lines 65-67, Chen teaches setting up a direct link to selected computing devices);

Identifying any failed devices that have failed to communicate the functional state of that failed device to other control applications (Chen, col. 5, lines 40-45);

wherein each device maintains a registry of properly functioning devices including the device addresses (Chen, col. 5, lines 5-15);

wherein the control applications build a team-building process for indicating their availability (Chen, col. 5, lines 40-50); wherein each control application transmits a startup signal identifying the device (Chen, col. 3, lines 55-60).

wherein the startup signal is broadcast to other devices (Chen, col. 5, lines 40-55);

wherein the startup signal is communicated directly to predetermined addresses that correspond to other peripheral devices (Chen, col. 4, lines 65-67).

26. Regarding claim 33, Chen, discloses the limitations, substantially as claimed, as described in claim 32, including wherein each control application transmits a shut-down signal when its peripheral device is no longer able to operate properly; each control application being operable to modify its functional group registry in response to a shut-down signal from another peripheral device to indicate the removal of that peripheral device from operation (Chen, col. 3, lines 55-60, Chen teaches devices broadcasting their status of failure to operate properly to other devices, it is inherent that the other devices will be able to operate without the failed device).

27. Regarding claim 34, Chen discloses the limitations, substantially as claimed, as described in claim 20, including wherein the control applications are on a central processor (Chen, col. 4, lines 55-65).

28. Claims 55-57 include limitations found in claims 20-22, and are therefore rejected by the art (Chen) used in the rejections of claims 20-22.

29. Regarding claims 60-62, Chen discloses announcing and recording the functional departure of other devices departing from a system by broadcasting the identity of any device not acknowledging communication (Chen, col. 5, lines 5-50, Chen discloses updating communication configuration content and broadcasting inactive devices to all other devices).

30. Claims 63-69 are rejected under 35 U.S.C. 102(b) as being anticipated by Mack et al. (U.S. Patent Number 5,673,385).

31. Regarding claim 63, Mack discloses a server device that operates both as a repository for software used by a plurality of interoperable peripheral devices communicating over a connected network comprising a transaction processing terminal, and as a proxy server for data required by at least one of the peripheral devices to process a transaction (Mack, col. 3, lines 20-25).

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32. Regarding claims 64-69, Mack discloses wherein a peripheral device initializes its startup by broadcasting a message (Mack, col. 3, lines 20-60, Mack teaches initialization of peripherals where peripherals must send a message to indicate its startup).

33. Claim 74 is rejected under 35 U.S.C. 102(e) as being anticipate by Livingston et al. (Non-Patent Literature, Windows 95 Secrets, 3rd Edition).

34. Regarding claim 74, Livingston discloses a transaction processing terminal comprising a plurality of networked peripheral devices including a user interface that removes otherwise available services from a displayed user menu when an associated peripheral device is functionally absent (Livingston, page 435, Livingston teaches devices which are not functioning to have a yellow exclamation sign, meaning the device is unusable).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

35. Claims 70-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of obviousness.

36. Regarding claim 70-72, Chen discloses a device that keeps updated information containing communication configurations of all connected devices and broadcasts a message to other peripheral devices of configuration information (Chen, col. 5, lines 5-50). Chen does not explicitly state wherein the device announces its shutdown. However, it would have been obvious for the device to announce its own shutdown since the device announces its readiness (Chen, col. 5, lines 40-50) to notify other devices of its departure in case the other devices are dependent on the device shutting down.

Claim Interpretation

Regarding the independent claims of the invention, a discussion about peripheral devices in a terminal should be made to clarify Examiner's interpretation. The definition of a peripheral device is a computer device that is connected to a computer and is controlled by the computer's microprocessor. A peripheral device containing a processor and memory communicating with other peripheral devices that also contain a processor and memory is the same as two computers communicating.

The independent claims involve a peripheral device associated with a control application in order to operate with other control applications associated with other

peripherals. This is the same as a computing system with device drivers installed in order to communicate with the devices.

In the Examiner's opinion, Applicant does not distinguish between Applicant's claimed invention and the basic local area network of networked computers communicating with each other and a server.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is (571)272-3910. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (703)308-5221. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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